

2. (currently amended) The biosensor of claim 21 wherein said mutated binding protein is selected from glucose/galactose binding proteins.

3. (original) The biosensor of claim 1 wherein said analyte is glucose or galactose.

4. (original) The biosensor of claim 2 wherein said mutated glucose/galactose binding protein has one amino acid substitution.

5. (original) The biosensor of claim 2 wherein said mutated glucose/galactose binding protein has at least two amino acid substitutions.

6. (currently amended) The biosensor of claim 32 wherein said mutated glucose binding protein includes one amino acid substitution selected from the group consisting of a cysteine at position 11, a cysteine at position 14, a cysteine at position 19, a cysteine at position 43, a cysteine at position 74, a cysteine at position 107, a cysteine at position 110, a cysteine at position ~~H12~~112, a cysteine at position 113, ~~a cysteine at position 137~~, a cysteine at position 149, a cysteine at position 213, a cysteine at position 216, a cysteine at position 238, a cysteine at position 287, a cysteine at position 292.

7. (original) The biosensor of claim 4 wherein said mutated binding protein has at least one histidine tags.

8. (original) The biosensor of claim 2 wherein said mutated glucose/galactose binding protein includes a cysteine present at position 213.

9. (original) The biosensor of 8 wherein said mutated glucose binding protein further includes a histidine tag.

10. (original) The biosensor of claim 2 wherein said mutated glucose binding protein includes a cysteine present at position 149 coupled to said sensor surface.

11. (original) The biosensor of 10 wherein said mutated glucose binding protein further includes a histidine tag.

12. (original) The biosensor of claim 5 wherein said mutated glucose binding protein includes at least two amino acid substitutions selected from the group consisting of: a cysteine at position 112 and a serine at position 238, a cysteine at position 149 and a serine at position 238, a cysteine at position 152 and a cysteine at position 182, a cysteine at position 152 and a serine at position 213, a cysteine at position 213 and a cysteine at position 238, a cysteine at position 149 and an arginine at position 213, a cysteine at position 149 and a serine at position 213 and a serine at position 238, and a cysteine at position 149 and an arginine at position 213 and a serine at position 238 coupled to said sensor surface.